

*REMARKS/ARGUMENTS**Present Invention and Pending Claims*

The present invention relates to a polyester composition and a polyester packaging material made therefrom. Claims 63-87 and 89 are pending.

Amendments to the Claims

Claims 33, 39-62, and 88 have been canceled. Claims 1-32 and 34-38 had been canceled previously. Claims 65, 73, and 82 have been amended to replace the term “polyester” with “polyamide.” No new matter has been added by way of these amendments.

Summary of the Office Action

Claims 40, 48, 57, 65, 73, and 82 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly indefinite. Claims 33 and 39-89 are rejected under 35 U.S.C. § 103(a) as obvious over EP 1 239 008 (Takashima et al.) (“the ‘008 application”) or U.S. Patent 6,733,853 (Takashima et al.) (“the ‘853 patent”) in combination with U.S. Patent 6,129,961 (Sonoda et al.). Reconsideration of the pending claims is hereby requested.

Discussion of the Indefiniteness Rejection

Claims 40, 48, 57, 65, 73, and 82 allegedly are indefinite. In particular, the Office questions the use of the term “polyester” in these claims.

Claims 40, 48, and 57 have been canceled. The term “polyester” has been replaced with “polyamide” in claims 65, 73, and 82 to correct a typographical error. Thus, amended claims 65, 73, and 82 require that the partially aromatic *polyamide* is an m-xylylene group-containing *polyamide*.

In view of the foregoing, Applicants submit that the claims are clear and definite, and this rejection should be withdrawn.

Discussion of the Obviousness Rejections

The subject matter defined by claims 33 and 39-89 allegedly is obvious over the '008 application or the '853 patent in combination with Sonoda et al. Since claims 33, 39-62, and 88 have been canceled, the obviousness rejections are discussed with respect to claims 63-87 and 89.

According to the Office, the '008 application and the '853 patent (hereinafter, collectively, "the Takashima references") describe a preferred range of 3-40% by mass of a polyamide resin, which does not teach away from other amounts of a polyamide resin. The Office further maintains that the claimed amounts of 0.1 to 2 parts or 3 parts by weight of polyamide per 100 parts by weight of polyester are *prima facie* obvious in view of the disclosure of 3.1 parts by weight in the Takashima references. To advance prosecution, and not in acquiescence of the rejection, the claimed subject matter has been limited to a composition comprising either 0.1 to 2 parts by weight (claims 63-78 and 89) or 0.01 to 2 parts by weight (claims 79-87) of a polyamide per 100 parts by weight of a polyester.

A. *The Cited References Do Not Render the Claimed Invention Prima Facie Obvious*

The Office states that "[p]olyamide contents lower than 3.1 parts by weight are deemed to be encompassed by the general disclosure of the [Takashima] references just so long as the content of the polyamide and the concentration of the phosphorus compound therein meet the formula (1)" (page 3, second paragraph). The fact remains, however, that the Takashima references do not disclose any polyamide contents below 3.1 parts by weight per 100 parts by weight of polyester. As such, it is not reasonable to say that the Takashima references teach or suggest a polyamide content of less than 3.1 parts by weight per 100 parts by weight of polyester.

The Office further states that "[t]he claimed polyamide content and the lower limit of the prior art preferred range contains contents that are very similar (i.e., 2 or 3 parts versus 3.1 parts), and, as such, the prior art range establishes *prima facie* obviousness" (sentence bridging pages 3 and 4). As noted above, Applicants have canceled those claims that recite 3 parts by weight of polyamide per 100 parts by weight of polyester. The remaining claims

recite an upper limit of 2 parts by weight of polyamide per 100 parts by weight of polyester, which differs from and, especially in view of the significantly different properties resulting therefrom (as described in more detail below), cannot reasonably be considered to be “very similar” to the recitation in the Takashima references of 3.1 parts by weight of polyamide per 100 parts by weight of polyester.

While the Office asserts that there is little or no meaningful difference between the inventive compositions and the compositions disclosed in the cited references, especially as regarding the amount of the partially aromatic polyamide, the Office cannot simply ignore the upper limit of 2 parts by weight of polyamide per 100 parts by weight of polyester as recited in the pending claims.

As the Board of Patent Appeals and Interferences in *Ex parte Wada and Murphy*, Appeal No. 2007-3733 (USPTO BPAI, January 14, 2008), recently stated: “When determining whether a claim is obvious, an examiner must make ‘a searching comparison of the claimed invention – *including all its limitations* – with the teaching of the prior art.’ *In re Ochiai*, 71 F.3d 1565, 1572, 37 U.S.P.Q.2d 1127 (Fed. Cir. 1995) (emphasis added). Thus, ‘obviousness requires a suggestion of all limitations in a claim.’ *CFMT, Inc. v. Yieldup Intern. Corp.*, 349 F.3d 1333, 1342, 68 U.S.P.Q.2d 1940 (Fed. Cir. 2003) (*citing In re Royka*, 490 F.2d 981, 985, 180 U.S.P.Q.2d 580 (CCPA 1974)). Moreover, as the Supreme Court recently stated, ‘*there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.*’ *KSR Int’l v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988, 78 U.S.P.Q.2d 1329 (Fed. Cir. 2006) (emphasis added)).” *Ex parte Wada and Murphy*, Appeal No. 2007-3733 (USPTO BPAI, January 14, 2008), slip op. at page 7.

As indicated above, neither of the Takashima references, nor the Sonoda et al. reference, discloses or suggests any polyamide contents below 3.1 parts by weight per 100 parts by weight of polyester. Rather, the Takashima references focus on higher polyamide contents and thereby indeed would have led one of ordinary skill in the art away from the inventive compositions that rely on lower polyamide contents. The fact that the Takashima references would have led one of ordinary skill away from the present invention is even more clear when one considers that the primary interest of the Takashima references is to provide a

polyester composition that can produce a packaging material that is not so dark. Thus, one of ordinary skill in the art, by following the teachings of the Takashima references, would not have any reason to reduce the polyamide content – in conjunction with adjusting other aspects of the composition – so as to try to achieve a composition that can provide a packaging material that simultaneously provides the somewhat contradictory characteristics of excellent transparency *and* good flavor retention. This effective teaching away from the present invention also is evidenced by the Examples in the Takashima references, wherein the polyamide content of the compositions is never below 10%. This value, of course, is well outside the maximum polyamide content range of 2 parts by weight per 100 parts by weight of polyester as recited in the pending claims.

Under the circumstances, the cited references do not support a *prima facie* case of obviousness against the present inventive compositions as defined by the pending claims.

B. Even When Combined, the Cited References Do Not Provide the Combination of Elements Recited in the Pending Claims

Even if, for the sake of argument, one of ordinary skill in the art were to consider and combine the disclosures of the Takashima references with the Sonoda et al. reference, one of ordinary skill in the art would not arrive at the particular combination of elements in the required amounts as recited in the pending claims.

The present inventive compositions can provide packaging materials with excellent transparency, thermal stability, and flavor retention properties. Such properties are not the result of only controlling the amounts of the thermoplastic polyester and partially aromatic polyamide in the compositions, but rather also by controlling, for example, the fine powder content of the thermoplastic polyester, the alkali metal atom content of the composition, the phosphorous atom content of the composition, and/or the antimony atom content of the composition (see specification at, for example, page 47, lines 3-16). The composition can provide a packaging material with the aforementioned superior properties only when these various aspects of the composition are controlled *in combination* in the appropriate manner, as described in the present application.

The Takashima references and the Sonoda et al. reference do not teach or suggest to one of ordinary skill in the art how to go about adjusting these various aspects of the composition to provide a superior packaging material. Indeed, the Takashima references and the Sonoda et al. reference do not even appreciate the importance of these aspects of the composition on the properties of the resulting packaging material.

The courts have consistently held that there must exist some reason for one of ordinary skill in the art to combine the prior art teachings and make any necessary adjustments thereto so as to arrive at the claimed invention. See, e.g., *KSR Int'l v. Teleflex Inc.*, 550 U.S. 398, 82 U.S.P.Q.2d 1385, 1396 (2007) (there is a need “to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue”); *In re Kotzab*, 217 F.3d 1365, 1371, 55 U.S.P.Q.2d 1313 (Fed. Cir. 2000) (“Particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed.”); *In re Rouffet*, 149 F.3d 1350, 1357, 47 U.S.P.Q.2d 1453 (Fed. Cir. 1998) (“In other words, the examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed.”).

In the present situation, no such reasons have been provided for one of ordinary skill in the art to combine the disclosures of the cited references and alter the aspects of the disclosed compositions in a manner that could lead to the present inventive compositions.

In the absence of any reason for one of ordinary skill in the art to alter the disclosed compositions of the cited references so as to even possibly stumble upon the inventive compositions, the inventive compositions cannot be considered to be obvious in view of the cited references.

C. *Any Prima Facie Obviousness is Rebutted by the Unexpected Properties Attendant the Present Invention as Defined by the Pending Claims*

Even if, for the sake of argument, the Office Action recites a *prima facie* obviousness rejection based on the cited references, the unexpected properties attendant the inventive

compositions as defined by the pending claims rebut the *prima facie* obviousness rejection and confirm the patentability of the inventive compositions.

For example, the composition of Example 13 in the present application has a polyamide content of 0.5 parts by weight per 100 parts by weight of polyester, while the similar composition of Example 14 of the present application has a polyamide content of 3.0 parts by weight per 100 parts by weight of polyester (see specification pages 102-103). Both compositions utilized the same polyester "PET (3A)" and the same polyamide "Ny-MXD6 (3E)" – the properties of which are set forth in Tables 1 and 2 of the present application (see specification pages 80-82). In particular, the composition of Example 13 is encompassed by each of the pending independent claims, while the composition of Example 14 similarly would be encompassed by each of the pending independent claims but for the presence of 3.0 parts by weight of polyamide per 100 parts by weight of polyester, which exceeds the maximum polyamide content of 2 parts by weight per 100 parts by weight of polyester as recited in the pending claims (see, e.g., the fine, phosphorous, sodium, and antimony contents recited in Tables 1 and 2 at specification pages 81 and 82 of the present application).

The compositions of Examples 13 and 14 were used to prepare molded articles, which were evaluated for transparency (haze, %, 2 mm) and flavor retention properties (sensory test). The results of those tests are set forth in Table 7 of the present application (see specification page 105). As is apparent from those experimental results, the composition having a polyamide content within the range recited in the pending claims (i.e., the composition of Example 13) can provide a packaging material that is remarkably superior in transparency (0.6 versus 1.0) and yet still exhibits good flavor retention properties (0.7 versus 0.6) as compared to a similar composition utilizing the same polyamide but in an amount (namely, 3 parts by weight per 100 parts by weight of polyester) outside the range recited in the pending claims (i.e., the composition of Example 14).

Thus, the specific combination of elements as recited in the pending claims provides polyester compositions that exhibit properties that are unexpected (i.e., surprising) in view of the disclosures of the cited references. The unexpectedly superior properties of the polyester compositions defined by the pending claims as compared to other similar polyester compositions, as demonstrated by the experimental data set forth in the present application,

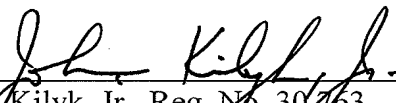
serve to rebut any *prima facie* obviousness rejection based on the Takashima references and the Sonoda et al. reference.

In view of the foregoing, Applicants respectfully request that the obviousness rejections over the '008 application and the '853 patent (i.e., the Takashima references) in view of Sonoda et al. be withdrawn.

Conclusion

Applicants respectfully submit that the patent application is in condition for allowance. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,



John Kilyk, Jr., Reg. No. 30,763
LEYDIG, VOIT & MAYER, LTD.
Two Prudential Plaza, Suite 4900
180 North Stetson Avenue
Chicago, Illinois 60601-6731
(312) 616-5600 (telephone)
(312) 616-5700 (facsimile)

Date: April 21, 2009